



## SEQUENCE LISTING

&lt;110&gt; BRISTOL-MYERS SQUIBB COMPANY

&lt;120&gt; METHODS FOR PREVENTING ISCHEMIC BRAIN INJURY

&lt;130&gt; D0299 NP

&lt;140&gt; 10/645,190

&lt;141&gt; 2003-08-21

&lt;150&gt; 60/405,586

&lt;151&gt; 2002-08-23

&lt;160&gt; 16

&lt;170&gt; PatentIn version 3.2

&lt;210&gt; 1

&lt;211&gt; 2263

&lt;212&gt; DNA

&lt;213&gt; Human

&lt;400&gt; 1

gatatcacag caacattgaa atgctaaaaa gtttttaaac actctcaatt tctaattcac 60

catgtcacag actggtgaaa aaaaaaaaaa aagcgggcgc ttccccccgg cggggccccc 120

gccgccccgc ggtccccaga gcgccaggcc cccgggggga gggagggagg gcgccgggccc 180

ggtgggagcc agcggcgcgcc ggtgggaccc acggagcccc gcgacccgcc gagcctggag 240

ccgggcccgc tcggggaagc cggctccagc ccggagcgaa cttcgcagcc cgtcgggggg 300

cggcggggag ggggcccga gccggaggag ggggcggccg cgggcacccc cgctgtgcc 360

ccggcgctcc cgggcaccat gctgtccaac tcccagggcc agagccccgc ggtgccgttc 420

cccgccccgg ccccgccgcc gcagcccccc acccctgcc tgccgcaccc cccggcgag 480

ccgccgcgc cgcccccgca gcagttcccg cagttccag tcaagtcgg cctgcagatc 540

aagaagaacg ccatcatcga tgactacaag gtcaccagcc aggtcctggg gctgggcatc 600

aacggcaaag ttttgcagat cttcaacaag aggaccagg agaaattcgc cctcaaaatg 660

cttcaggact gcccgaaggc ccgcaggag gtggagctgc actggcgggc ctcccagtgc 720

ccgcacatcg tacggatcgt ggatgtgtac gagaatctgt acgcaggag gaagtgcctg 780

ctgattgtca tggaatgttt ggacggtgga gaactcttta gccgaatcca ggatcgagga 840

gaccaggcat tcacagaaag agaagcatcc gaaatcatga agagcatcgg tgaggccatc 900

cagtatctgc attcaatcaa cattgcccac cgggatgtca agcctgagaa tctcttatac 960

acctcaaaa ggcccaacgc catcctgaaa ctactgact ttggctttgc caaggaaacc 1020

accagccaca actctttgac cactccttgt tatacacggt actatgtggc tccagaagtg 1080  
 ctgggtccag agaagtatga caagtccgtg gacatgtggg ccctgggtgt catcatgtac 1140  
 atcctgctgt gtgggtatcc cccctttctac tccaaccacg gccttgccat ctctccgggc 1200  
 atgaagactc gcatccgaat gggccagtat gaatttccca acccagaatg gtcagaagta 1260  
 tcagaggaag tgaagatgct cattcggaat ctgctgaaaa cagagccac ccagagaatg 1320  
 accatcaccg agtttatgaa ccacccttgg atcatgcaat caacaaggt ccctcaaacc 1380  
 ccaactgcaca ccagccgggt cctgaaggag gacaaggagc ggtgggagga tgtcaagggg 1440  
 tgtcttcatg acaagaacag cgaccaggcc acttggttga ccaggttgtg agcagaggat 1500  
 tctgtgttcc tgtccaaact cagtgtgtgt tcttagaatc cttttattcc ctgggtctct 1560  
 aatgggacct taaagaccat ctggtatcat cttctcattt tgcagaagag aaactgaggc 1620  
 ccagaggcgg agggcagttc gctcaaggtc acgcagctgg tgactggttg gggcagaccg 1680  
 gaccaggtt tctgactcc tggcccaagt ctcttctcc tctctgcgg gatcactggg 1740  
 gggctctcag ggaacagcag cagtgccata gccaggctct ctgtgccca gcgctgggg 1800  
 gaggtgccg ttgtcagcgt ggaccactaa ccagcccgtc ttctctctct gctcccacc 1860  
 ctgccgccct caccctgcc ttgttgtctc tgtctctcac gtctctcttc tgtgtctct 1920  
 cctacctgtc ttctggctct ctctgtacct ttctgggtgc tgccgtgcc ccaggaggag 1980  
 atgaccagtg ccttggccac aatgcgcgtt gactacgagc agatcaagat aaaaaagatt 2040  
 gaagatgcat ccaaccctct gctgtgaag aggcggaaga aagctcgggc cctggaggct 2100  
 gcggctctgg cccactgagc caccgcgcc ttctgccac gggaggacaa gcaataactc 2160  
 tctacaggaa tatatTTTTT aaacgaagag acagaactgt ccacatctgc ctctctct 2220  
 cctcagctgc atggagcctg gaactgcac agtgactgaa ttc 2263

<210> 2  
 <211> 370  
 <212> PRT  
 <213> Human

<400> 2

Met Leu Ser Asn Ser Gln Gly Gln Ser Pro Pro Val Pro Phe Pro Ala  
 1 5 10 15

Pro Ala Pro Pro Pro Gln Pro Pro Thr Pro Ala Leu Pro His Pro Pro  
 20 25 30

Ala Gln Pro Pro Pro Pro Pro Pro Gln Gln Phe Pro Gln Phe His Val  
 35 40 45

Lys Ser Gly Leu Gln Ile Lys Lys Asn Ala Ile Ile Asp Asp Tyr Lys  
 50 55 60

Val Thr Ser Gln Val Leu Gly Leu Gly Ile Asn Gly Lys Val Leu Gln  
 65 70 75 80

Ile Phe Asn Lys Arg Thr Gln Glu Lys Phe Ala Leu Lys Met Leu Gln  
 85 90 95

Asp Cys Pro Lys Ala Arg Arg Glu Val Glu Leu His Trp Arg Ala Ser  
 100 105 110

Gln Cys Pro His Ile Val Arg Ile Val Asp Val Tyr Glu Asn Leu Tyr  
 115 120 125

Ala Gly Arg Lys Cys Leu Leu Ile Val Met Glu Cys Leu Asp Gly Gly  
 130 135 140

Glu Leu Phe Ser Arg Ile Gln Asp Arg Gly Asp Gln Ala Phe Thr Glu  
 145 150 155 160

Arg Glu Ala Ser Glu Ile Met Lys Ser Ile Gly Glu Ala Ile Gln Tyr  
 165 170 175

Leu His Ser Ile Asn Ile Ala His Arg Asp Val Lys Pro Glu Asn Leu  
 180 185 190

Leu Tyr Thr Ser Lys Arg Pro Asn Ala Ile Leu Lys Leu Thr Asp Phe  
 195 200 205

Gly Phe Ala Lys Glu Thr Thr Ser His Asn Ser Leu Thr Thr Pro Cys  
 210 215 220

Tyr Thr Pro Tyr Tyr Val Ala Pro Glu Val Leu Gly Pro Glu Lys Tyr  
 225 230 235 240

Asp Lys Ser Cys Asp Met Trp Ser Leu Gly Val Ile Met Tyr Ile Leu  
 245 250 255

Leu Cys Gly Tyr Pro Pro Phe Tyr Ser Asn His Gly Leu Ala Ile Ser  
 260 265 270

Pro Gly Met Lys Thr Arg Ile Arg Met Gly Gln Tyr Glu Phe Pro Asn  
 275 280 285

Pro Glu Trp Ser Glu Val Ser Glu Glu Val Lys Met Leu Ile Arg Asn  
 290 295 300

Leu Leu Lys Thr Glu Pro Thr Gln Arg Met Thr Ile Thr Glu Phe Met  
 305 310 315 320

Asn His Pro Trp Ile Met Gln Ser Thr Lys Val Pro Gln Thr Pro Leu  
 325 330 335

His Thr Ser Arg Val Leu Lys Glu Asp Lys Glu Arg Trp Glu Asp Val  
 340 345 350

Lys Gly Cys Leu His Asp Lys Asn Ser Asp Gln Ala Thr Trp Leu Thr  
 355 360 365

Arg Leu  
 370

<210> 3  
 <211> 1726  
 <212> DNA  
 <213> Human

<400> 3  
 gatatacacag caacattgaa atgctaaaaa gtttttaaac actctcaatt tctaattcac 60  
 catgtcacag actggtgaaa aaaaaaaaaa aagcggccgc ttccccccgg cggggccccc 120  
 gccgccccgc ggtccccaga gcgccaggcc cccgggggga gggagggagg gcgccgggcc 180  
 ggtgggagcc agcggcgcg ggtgggaccc acggagcccc gcgacccgcc gagcctggag 240  
 ccgggcccgc tcggggaagc cggctccagc ccggagcgaa ctctgcagcc cgtcgggggg 300  
 cggcggggag ggggccccga gccggaggag ggggcggccg cgggcacccc cgctgtgcc 360  
 ccggcgctcc cgggcaccat gctgtccaac tcccagggcc agagcccgcc ggtgccgttc 420  
 cccgccccgg ccccgccgcc gcagcccccc acccctgccc tgccgcaccc cccggcgag 480  
 ccgcccgcgc cgccccgca gcagttcccg cagttccagc tcaagtccgg cctgcagatc 540

aagaagaacg ccatcatcga tgactacaag gtcaccagcc aggtcctggg gctgggcatc 600  
aacggcaaag ttttgcagat cttcaacaag aggacccagg agaaattcgc cctcaaaatg 660  
cttcaggact gccccaaagg ccgcagggag gtggagctgc actggcgggc ctcccagtgc 720  
cccgacatcg tacggatcgt ggatgtgtac gagaatctgt acgcagggag gaagtgcctg 780  
ctgattgtca tggaatgttt ggacggtgga gaactcttta gccgaatcca ggatcgagga 840  
gaccaggcat tcacagaaag agaagcatcc gaaatcatga agagcatcgg tgaggccatc 900  
cagtatctgc attcaatcaa cattgcccac cgggatgtca agcctgagaa tctcttatac 960  
acctccaaaa ggcccaacgc catcctgaaa ctactgact ttggctttgc caaggaaacc 1020  
accagccaca actctttgac cactccttgt tatacacctg actatgtggc tccagaagtg 1080  
ctgggtccag agaagtatga caagtctgt gacatgtggt cctgggtgt catcatgtac 1140  
attctgctgt gtgggtatcc ccccttctac tccaaccacg gccttgccat ctctccgggc 1200  
atgaagactc gcatccgaat gggccagtat gaatttccca acccagaatg gtcagaagta 1260  
tcagaggaag tgaagatgct cattcggaat ctgctgaaaa cagagcccac ccagagaatg 1320  
accatcacg agtttatgaa ccacccttg atcatgcaat caacaaaggc cctcaaacc 1380  
ccactgcaca ccagccgggt cctgaaggag gacaaggagc ggtgggagga tgtcaaggag 1440  
gagatgacca gtgccttggc cacaatgcgc gttgactacg agcagatcaa gataaaaaag 1500  
attgaagatg catccaaccc tctgctgctg aagaggcgga agaaagctcg ggccctggag 1560  
gctgcggtc tgcccactg agccaccg cgccctctgcc cacgggagga caagcaataa 1620  
ctctctacag gaatatattt tttaaacgaa gagacagAAC tgtccacatc tgctctct 1680  
cctctcagc tgcattggagc ctggaactgc atcagtgact gaattc 1726

<210> 4  
<211> 400  
<212> PRT  
<213> Human

<400> 4

Met Leu Ser Asn Ser Gln Gly Gln Ser Pro Pro Val Pro Phe Pro Ala  
1 5 10 15

Pro Ala Pro Pro Pro Gln Pro Pro Thr Pro Ala Leu Pro His Pro Pro  
20 25 30

Ala Gln Pro Pro Pro Pro Pro Gln Gln Phe Pro Gln Phe His Val

35

40

45

Lys Ser Gly Leu Gln Ile Lys Lys Asn Ala Ile Ile Asp Asp Tyr Lys  
50 55 60

Val Thr Ser Gln Val Leu Gly Leu Gly Ile Asn Gly Lys Val Leu Gln  
65 70 75 80

Ile Phe Asn Lys Arg Thr Gln Glu Lys Phe Ala Leu Lys Met Leu Gln  
85 90 95

Asp Cys Pro Lys Ala Arg Arg Glu Val Glu Leu His Trp Arg Ala Ser  
100 105 110

Gln Cys Pro Asp Ile Val Arg Ile Val Asp Val Tyr Glu Asn Leu Tyr  
115 120 125

Ala Gly Arg Lys Cys Leu Leu Ile Val Met Glu Cys Leu Asp Gly Gly  
130 135 140

Glu Leu Phe Ser Arg Ile Gln Asp Arg Gly Asp Gln Ala Phe Thr Glu  
145 150 155 160

Arg Glu Ala Ser Glu Ile Met Lys Ser Ile Gly Glu Ala Ile Gln Tyr  
165 170 175

Leu His Ser Ile Asn Ile Ala His Arg Asp Val Lys Pro Glu Asn Leu  
180 185 190

Leu Tyr Thr Ser Lys Arg Pro Asn Ala Ile Leu Lys Leu Thr Asp Phe  
195 200 205

Gly Phe Ala Lys Glu Thr Thr Ser His Asn Ser Leu Thr Thr Pro Cys  
210 215 220

Tyr Thr Pro Tyr Tyr Val Ala Pro Glu Val Leu Gly Pro Glu Lys Tyr  
225 230 235 240

Asp Lys Ser Cys Asp Met Trp Ser Leu Gly Val Ile Met Tyr Ile Leu  
245 250 255

Leu Cys Gly Tyr Pro Pro Phe Tyr Ser Asn His Gly Leu Ala Ile Ser  
260 265 270

Pro Gly Met Lys Thr Arg Ile Arg Met Gly Gln Tyr Glu Phe Pro Asn  
 275 280 285

Pro Glu Trp Ser Glu Val Ser Glu Glu Val Lys Met Leu Ile Arg Asn  
 290 295 300

Leu Leu Lys Thr Glu Pro Thr Gln Arg Met Thr Ile Thr Glu Phe Met  
 305 310 315 320

Asn His Pro Trp Ile Met Gln Ser Thr Lys Val Pro Gln Thr Pro Leu  
 325 330 335

His Thr Ser Arg Val Leu Lys Glu Asp Lys Glu Arg Trp Glu Asp Val  
 340 345 350

Lys Glu Glu Met Thr Ser Ala Leu Ala Thr Met Arg Val Asp Tyr Glu  
 355 360 365

Gln Ile Lys Ile Lys Lys Ile Glu Asp Ala Ser Asn Pro Leu Leu Leu  
 370 375 380

Lys Arg Arg Lys Lys Ala Arg Ala Leu Glu Ala Ala Ala Leu Ala His  
 385 390 395 400

<210> 5  
 <211> 29  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Primer

<400> 5  
 cgtgggggtg gggtgacatg ctgggtgac

29

<210> 6  
 <211> 25  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Primer

<400> 6  
 ggtgtcacct tgacatcccg gtgag

25

<210> 7  
<211> 24  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 7  
tgctcgctcg atgcgatggt tcgc

24

<210> 8  
<211> 20  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 8  
tcatgcacca ccatcaagga

20

<210> 9  
<211> 21  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 9  
gaggcaacct gaccactctc c

21

<210> 10  
<211> 26  
<212> DNA  
<213> Artificial

<220>  
<223> Probe

<400> 10  
aatgggcttt ccgaattcac tggagc

26

<210> 11  
<211> 21  
<212> DNA  
<213> Artificial

<220>  
<223> Primer



<400> 11  
acactcctta gtcctcggcc a 21

<210> 12  
<211> 20  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 12  
ccatcagagg caaggaggaa 20

<210> 13  
<211> 26  
<212> DNA  
<213> Artificial

<220>  
<223> Probe

<400> 13  
caggtcgctc agggtcacaa gaaacc 26

<210> 14  
<211> 22  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 14  
tgtcctctaa gaaccgaaaa gc 22

<210> 15  
<211> 21  
<212> DNA  
<213> Artificial

<220>  
<223> Primer

<400> 15  
cgttgggatt ggtgactctg a 21

<210> 16  
<211> 26  
<212> DNA  
<213> Artificial

<220>

<223> Probe

<400> 16

ttgtagaaag agcagcacag ctggcc

26